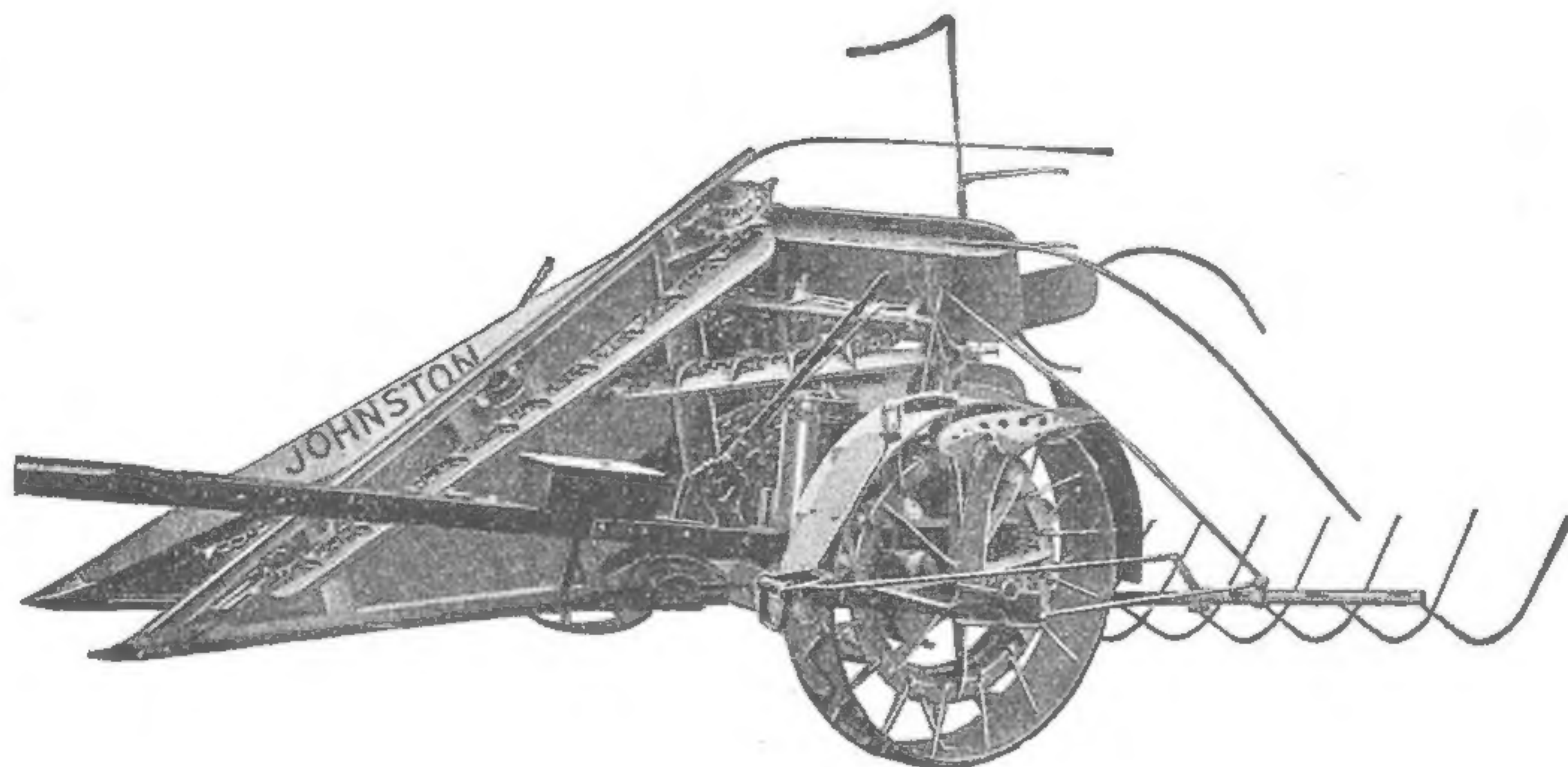


# DIRECTIONS FOR SETTING UP JOHNSTON Corn Binder

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MANUFACTURED BY

**The Johnston Harvester Co.**  
Batavia, New York, U. S. A.

European Office: 148 Boulevard de la Villette, Paris

## **Important Notice**

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**Do not be afraid of oil—not too much but plenty. More farm machinery is ruined for lack of oil than any one other thing. And above all, DO NOT neglect the oil holes that are hardest to reach—they need oil the most. Be sure to oil your machine several times a day.**



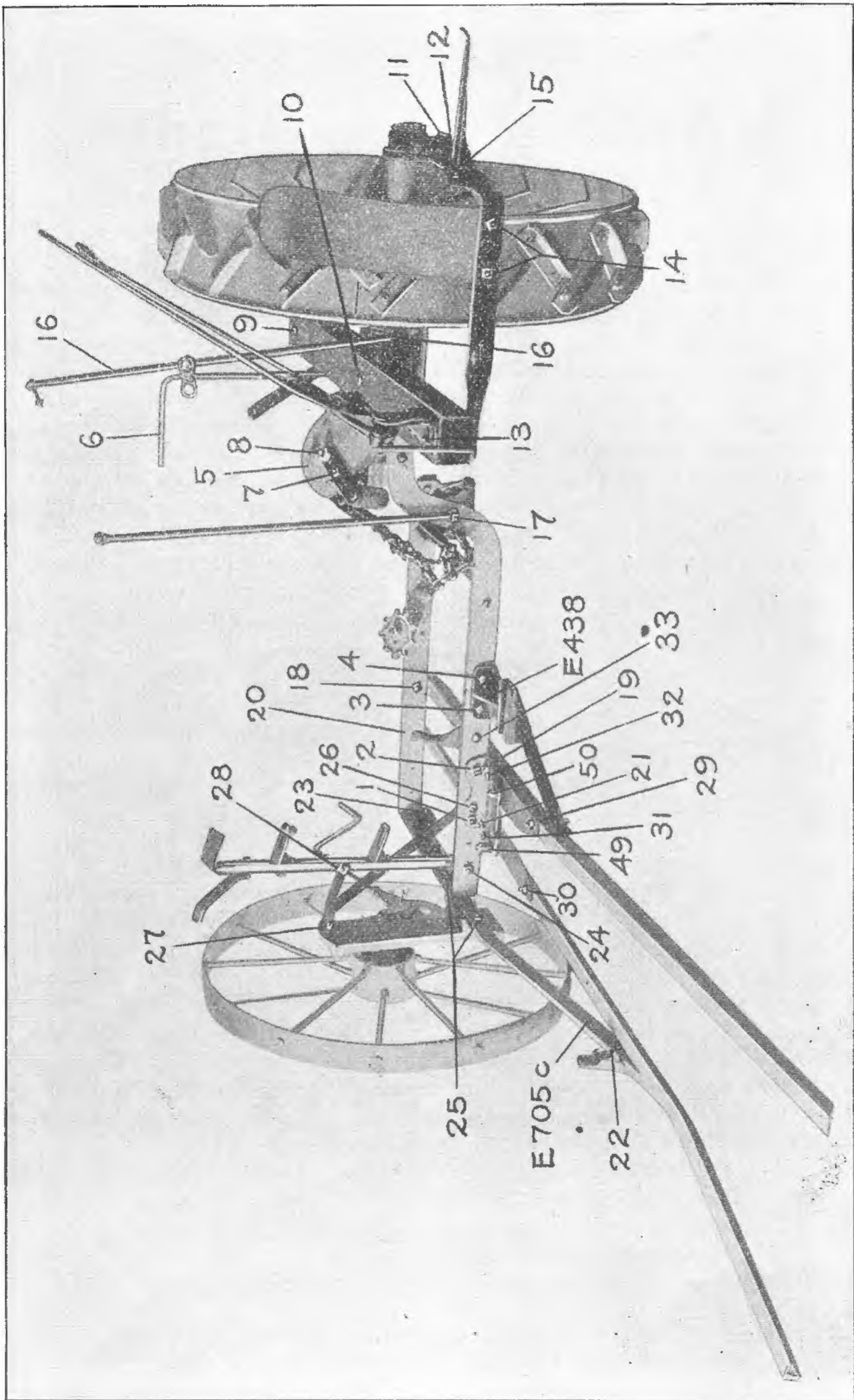
## DIRECTIONS FOR SETTING UP

# Johnston Corn Binder

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1. Set Main Frame on edge with Crank Wheel up and remove Gear Shield from Drive Wheel.
2. Remove two square nuts from bolts, which hold Angle Iron, above Main Drive Wheel Axle.
3. Place Main Gear Shield Horn, having two holes on bolts where nuts were previously removed. Bolt other end of Shield to Main Frame with bolt found in Shield.
4. Remove one washer wired to Casting E475C. Place it on Axle and follow with wheel. Then insert 17 roller bearings, found in canvas sack, in the chamber of wheel. Place the other washer outside of wheel on axle and follow with E475C Casting and Pin. Be sure to have the largest part of the Casting at the left hand as you stand in front of wheel, with figures E475C up.
5. Bolt Bracket E430C to the third and fifth holes from end of Main Frame (cut 1, arrows 1 and 2).
6. Bolt E438 Way Piece, with iron attached, to the seventh and eighth holes from end of Frame (cut 1, arrows 3 and 4).
7. Remove Gear Cover E612 and oil rollers well (cut 1, arrow 5). Place Chain 063, 46 links, on Sprocket, hooks to lead. Insert Clutch Shifter through hole in Gear Cover E612 (cut 1, arrow 6). At the same time put Chain Tightener Bolt in Slot in Gear Cover (cut 1, arrow 7). Then replace Gear Cover and bolt.
8. Next try Gear Shifter to see if it works freely and easily. Then place Chain Tightener on top of Shield and secure with bolt previously put in Gear Cover. Secure the other end on Stud Bolt with large nut (cut 1, arrow 8).
9. Remove the two bolts found in Angle Iron front and rear next to Gear Cover. Place Stub Pole on the above bolts and secure (cut 1, arrows 9 and 10).
10. Remove the three bolts in Seat Casting outside of Drive Wheel. Fasten E641C Seat Support and Pole Connection on inside of Seat Casting with the bolts previously removed (cut 1, arrows 11 and 12). E641C is a large flat iron bent at right angle with quarter twist on the end. Bolt the other end to Pole with front bolt found in Tilting Lever Bracket, placing the remaining bolt up through Pole and Casting. Do not tighten this last bolt (cut 1, arrow 13).
11. Bolt Foot Guard Shield on in front of Wheel, inside of Seat Support E641C, with two bolts found in Foot Guard (cut 1, arrow 14). If with Bundle Carrier use E476 Foot Trip Bracket on these two bolts.
12. Bolt E477 Foot Support Bracket to the outside of Seat Support with bolts found in E477 (cut 1, arrow 15).
13. Bolt E667 Tier Brace, outer, one bolt in each end, to top of Angle Iron, front, near Stub Pole (cut 1, arrow 16).
14. Bolt E668 Tier Brace, inner, to Main Frame front side, in hole directly on bend in Frame (cut 1, arrow 17).
15. Bolt E531 Gathering Beam inner to Main Frame and E430C Gathering Beam Support (cut 1, arrows 18 and 19).
16. Bolt E529 Gathering Beam, outer, in the same manner as E531 (cut 1, arrows 20 and 21).
17. Bolt E705D Outer Divider Brace (a flat brace with 8 holes in it) to out-





Cut No. 1



side of Main Frame and at the same time bolt E474C Grain Wheel Fender Bracket to the outside and front of E705C (cut 1, arrow 22), long side of bend on E705C at the rear (cut 1, E705).

18. Bolt E601C to inside of Main Frame and through E705D in the two rear holes in Main Frame (cut 1, arrow 23). Bolt E724E to the front bolt in E601C. E724E is a flat piece of iron 7 in. long and is attached to Long Pipe Brace E723F. (Cut 4, arrows 94 and E724E).

19. Bolt E651D Outer Divider Post Pipe on inside of Main Frame in first hole from the corner (cut 1, arrow 24). When bolted, the Pipe should lean forward.

20. Bolt E450 Grain Wheel Post to outside of Outer Divider Brace, bolts found in E450 (cut 1, arrow 25).

21. Put in place E724 Outer Divider Post Brace Support, bent end to Grain Wheel Standard (cut 1, arrow 27), and the short end, front hole, to the front of Pipe, placing bolt first through brace, then through Pipe, with nut to the rear of Pipe, leaving nut loose. The extra hole in brace is for adjustment (cut 1, arrow 28). Bolt E805 Outer Divider Post Brace to hole in Main Frame, four holes from front corner. Attach the other end of Brace to Grain Wheel Standard in the center (cut 4, arrows 95 and 96). E797E Grain Wheel Post Brace attaches directly in front of E651D Outer Divider Post Pipe (cut 4, arrow 99). Bolt E723F Outer Divider Post Brace, rear, to E724E and the other end of Brace to E651D at the top, opposite Short Brace, taking top bolt and Short Brace (cut 4, arrow 97).

22. Bolt Side Knives to Gathering Beams, bevel sides down (cut 1, arrows 29 and 30). Bolt E806 Outer Divider Gathering Beam Brace (a flat brace 8½ in. long) to Outer Gathering Beam Brace and Outer Gathering Beam (cut 4, arrow 98).

23. Bolt E609C (cut 1, arrows 31 and 32) to Gathering Beam but be sure to put E530C Wear Piece (a 5-16 square iron with a hook on each end) under E609C and back of knives.

24. Next, try both knife and sickle and see that they work freely. If they should not work freely, loosen bolts in E438 Way Piece just a little and drive up on the under side of Way Piece, and place it so the knife will be free. Then draw nuts up tight (cut 1, E438).

25. Bolt E598 Main Frame Tier Support, malleable, to inside of Main Frame in the sixth hole from the corner (cut 1, arrow 33).

26. Place E449C Grain Wheel Slide in Grain Wheel Post and place Wheel on Axle.

27. Remove Tier from crate. Remove Pin, Sprocket and Bearing from end of Shaft. Replace them in proper position, Bearing first, then follow with Sprocket and lastly, pin Gear on Shaft with pin previously removed.

28. Bolt Idler Shaft to Tier with bolts found in Brackets.

29. Remove bolts from E463 Needle Crank Shield at rear of Main Frame (cut 2, arrows 34 and 35). Drop Main Frame just as low as possible by crank on Grain Wheel end.

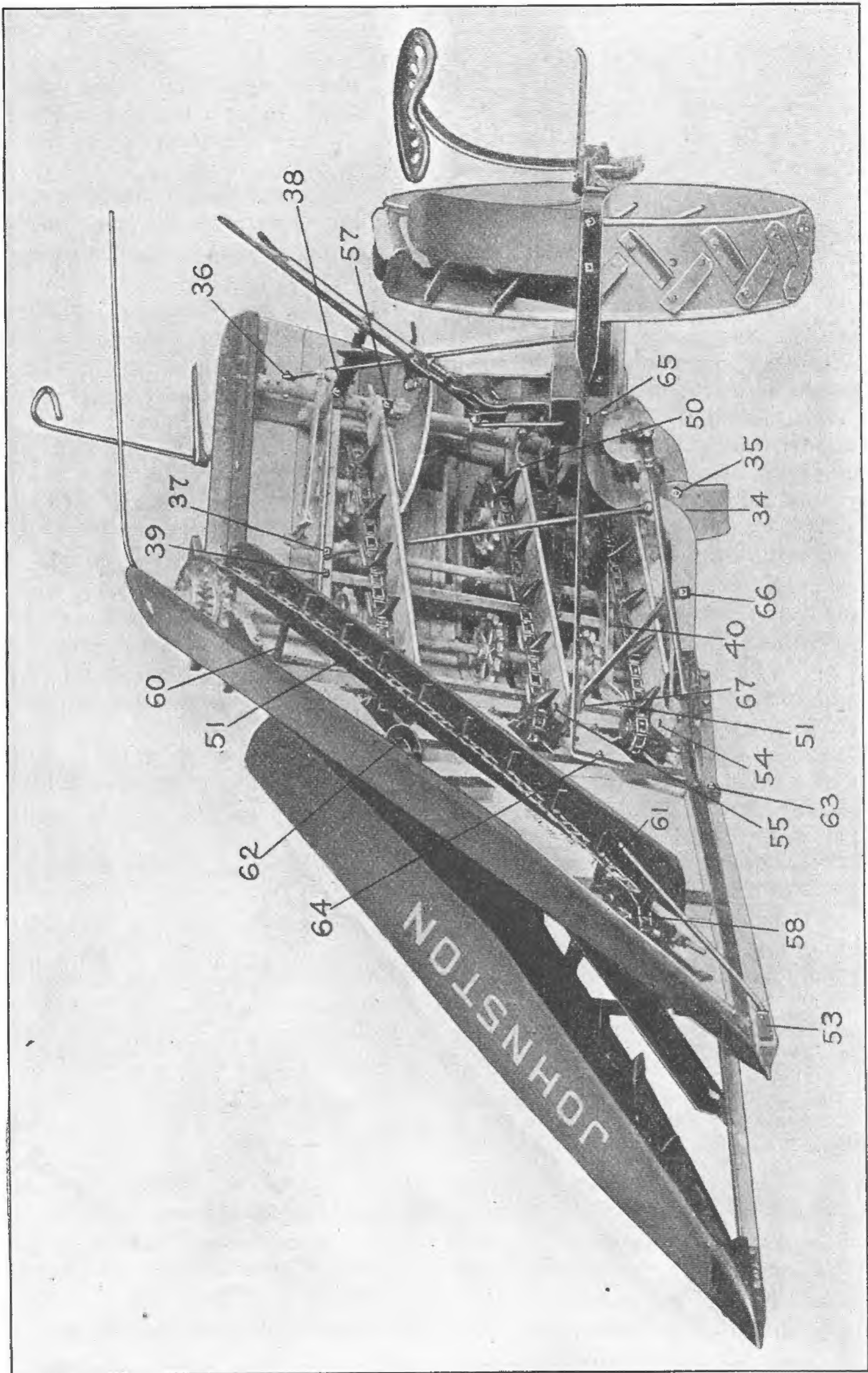
30. Place on the ground the 1½ inch board, which was removed from Gear Cover on Main Frame, directly back of E463 Needle Crank Shield.

31. Place the Tier on this plank and edge it backward and forward until the Tier is far enough forward so that you can connect E555 Angle Iron to Casting E598 with a punch. See E598 at arrow 33, cut 1.

32. Secure Tier Pipe, upper end to E667 Tier Brace (cut 2, arrow 36).

33. Now replace bolts, previously removed from E463 Needle Crank Shield (cut 2, arrows 34 and 35) and fasten to Casting E595C, which is bolted to the lower end of Tier.





Cut No. 2



34. Bolt upper part of Brace E668 to Angle Iron on upper part of Tier (cut 2, arrow 37).

35. Bolt short flat Brace, which is attached to rear of Main Frame and Gear Frame, to Tier Pipe Post. Now draw all bolts up tight. Be sure to draw bolts up tight on E463 and E595C on lower end of Tier (cut 2, arrows 34 and 35). Dispense with all washers on all of the above bolts.

36. Hook Short Rod, with bent hook on each end, to E388C Stalk Channel Raising Rod in front of Center Trip, on Tier.

37. Hook Short Rod into Lever on E606, bolting E606 to E692 Tier Sill, upper (cut 2, arrow 38). Dispense with these washers also.

38. Connect Drive Chain. Place Chain Tightener up to Chain.

39. Remove two bolts from Deck Support E656 (3 ft. 9½ in. long with four notches cut in). Place it on Tier, back of Idler Shaft, with small end up and so the gates will drop into slots or notches (cut 2, arrows 39 and 40).

40. You will find E696 with 4507 Sheet Iron bolted to Stick and following in order 4506, 4505, and 4548, all bolted to Stick (cut 3).

41. In bolting Decks to these pieces follow directions as given. Bolt E658C Lower Deck to Sheet Steel 4507 and 4506. Bolt Upper Deck to 4505 and 4548 last (cut 3) Sheet Steel on top of Decks, using the center bolt to secure the two decks (cut 3, arrow 41). To distinguish the Lower Deck you will observe that it has two large holes.

42. Bolt E666 Top Rail on the top side of Decks (cut 3, arrow 42). Place Deck and Sheet Iron on Tier.

43. Bolt Stick, with Sheet Iron attached, to the two rear holes in upper and lower Tier Sills. Caution: Be sure to use the rear holes, not the front (cut 3, arrows 44 and 45).

44. Place the two bolts, previously removed from E656 Deck Support, through Lower and Upper Decks, also through E656 and Upper and Lower Tier Sills (cut 3, arrows 46 and 47).

45. Place bolt in Upper Deck and Top Rail through Tier Post Pipe (cut 3, arrow 43).

46. Bolt 4449 Deck Support, found in Tool Box, on Tier Post Pipe on under side of Deck, rear. 4449 is a short flat brace, bent at right angle with two bolts in it (cut 3, arrow 48).

47. Connect Stalk Channel to E609C with pin and cotter (cut 1, arrows 49 and 50).

48. Place Platform between the inside of Stalk Channel and Lower Tier Sill. Bolt with the two bolts found in platform (cut 2, arrows 51 and 51) and through E598 Main Frame Tier Support. Loosen the two bolts that hold Point to Platform. Then remove the two remaining bolts and bolt Point to Gathering Beam. Attach Iron Fender to these same bolts. Then draw all bolts up tight (cut 2, arrow 53).

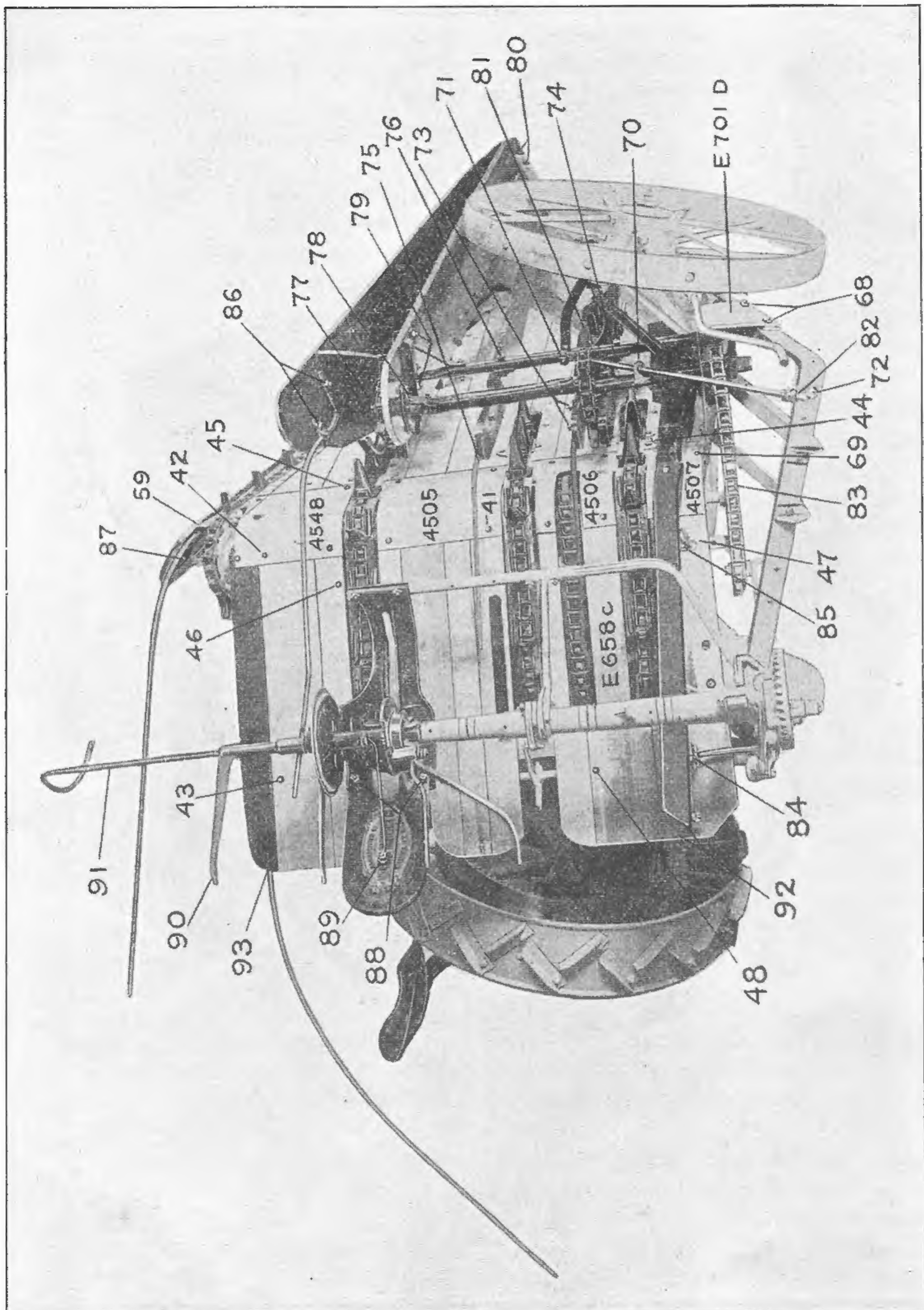
49. Bolt in place E635 Chain Guide Lower (wood, cut out on one end). This end should be placed over Knife. Bolt the other end to Tier Frame Bracket (cut 2, arrow 54).

50. Bolt E636 Chain Guide Center (wood, sawed off on an angle at each end) to the center of Bracket on Platform and on Tier Frame (cut 2, arrows 50 and 55).

51. Take E769 Chain Guide, upper (wood, beveled off on one end) and bolt this beveled end to E758 Casting in Tool Box. Then bolt this Bracket to Tier Post Pipe. The other end of Chain Guide, upper, should be bolted to Bracket on Platform (cut 2, arrow 57).

52. Place the three Conveyor Chains on Sprockets. Before connecting links,





Cut No. 3



take small sprockets off by removing nut, and use axle grease freely. Replace them and connect. Do not draw too tight, just taut.

53. Caution should be used in placing chains, to see that the fingers are in a direct line in a vertical position.

54. Place Gathering Chain on Platform over large and small Sprockets. Use Axle Grease on small sprocket (cut 2, arrow 58).

55. Bolt E764 Idler Shaft Gear Shield, to upper end of Platform and to the under side of Wing Board (cut 3, arrow 59).

56. Bolt E766 Platform Front Conveyor Chain Guide Bracket Rear (a flat iron  $1\frac{1}{4} \times \frac{1}{4}$ , 11 in. long, bent at right angle) to Platform Cleat, upper end, below and at the left of large Gear and Sprocket (cut 2, arrow 60).

57. Bolt E767 Platform Front Conveyor Chain Guide Bracket Front  $1\frac{1}{4} \times \frac{1}{4}$ , 8 in. long to cleat directly back of Lower Gathering Chain Bracket (cut 2, arrow 61).

58. Bolt E768 Platform Front Conveyor Chain Guide to Brackets E755 and E767 which have just been bolted to Platform.

59. Bolt Sheave E479 for Gathering Chain to Center of Platform (cut 2, arrow 62).

60. Connect Pitman to Knife with cotters and pitman washer.

61. Bolt E649C Flat Iron Brace (bent at right angle with an eye fastened to it) to Platform (cut 2, arrows 63 and 64) with 3 bolts. Place Iron under Stub Pole and fasten to same, using bolt in Tilting Ratchet (cut 2, arrow 65).

62. Bolt E650 Platform Brace to Main Frame and under eye on E649C (cut 2, arrows 66 and 67).

63. Place E701D Outer Divider Sprocket Shield over E704D Outer Divider Shaft, with three sprockets on, between the center and lower Sprocket. Bolt Shield to outside of Main Frame, taking bolts connecting E601C to frame next to the corner (cut 3, near arrow 68). Bolt the other end of Shield to inside of 4507 Platform Sheet Iron Lower with nut on the inside of 4507 (cut 3, arrow 69).

64. Bolt the other end of E798C to Outer Divider Post (cut 4, arrow 101).

65. Bolt E804 Butt Fender to the bolt, taking outside knife directly under Lower Conveyor Chain Shield and on Outer Gathering Beam, the Fender projecting up and along Stalk Channel.

66. Bolt E839 Lower Outer Conveyor Rod to Divider Board Rod with two bolts found in Rod, and to Outer Lower Chain Shield. This Rod differs from Rods E645 already on the machine; i.e., this Rod has an upward bend to clear the chain fingers, see cut 3, arrow 73.

67. Place Chain over large and small sprockets. Now bolt E774E Outer Divider Board and Chain Shield to Gathering Beam and the other end to Bracket E602C (cut 3, arrow 74) on Outer Divider Post. Have the open side of links on Chain to lead. Do not tighten Chain yet.

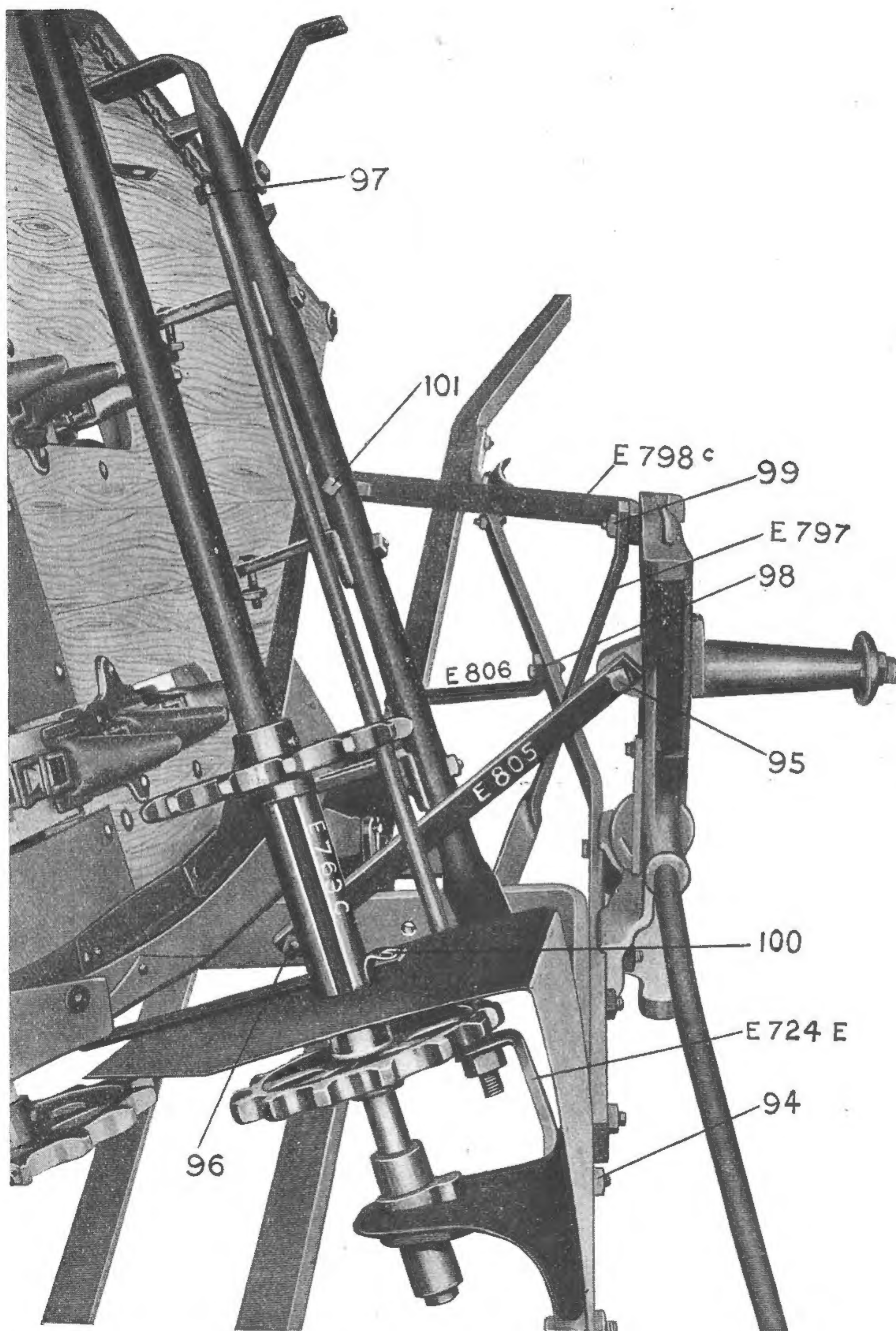
68. Bolt the remaining rod E645 Divider Board Rod to the top side of E648C (cut 3, arrow 75), Outer Divider Board upper. Then bolt lower end of Board to Gathering Beam and the other end to Bracket E602C with bolt through (cut 3, arrow 76).

69. Remove pin from Outer Divider Shaft Knuckle E616C. Take off E615C Sprocket and unbolt E617C Box on Outer Conveyor. Then place E615C Sprocket on this box and bolt fast, replacing box as found, with inside bolt, leaving the nut loose on the other bolt (cut 3, arrow 78).

70. Remove the two nuts on outside and inside bolt below cleat on Outer Conveyor (cut 3, arrow 79).

71. Place Conveyor with E615C Sprocket and Box attached over Conveyor Shaft; placing bolts with nuts previously removed on Outer Divider Post and Brace (cut 3, arrow 79).





Cut No. 4



72. Bolt E464 Outer Divider Point to Outer Conveyor and also to Gathering Beam with two bolts found in Point and two in Conveyor (cut 3, arrow 80).

73. Replace two nuts removed from Outer Conveyor and bolt to Outer Conveyor Post and Brace (cut 3, arrow 79).

74. Fasten Clip to Shield by bolt on which nut was previously left loose on Box E617C (cut 3, arrow 78).

75. Now tighten Lower Chain, previously left loose (cut 3, arrow 81).

76. Place Long Outer Conveyor Chain over small and large Sprockets and draw up taut, straight part of hooks to lead.

77. Now replace E616C with pin previously removed (cut 3, arrow 77).

78. Draw up the outside hexagon nut on Brace E723F previously left loose (cut 3, arrow 82).

79. Place Drive Chain 37 links under Tier around Outer Divider Shaft Sprocket to the outside of Idler Shaft Sprocket and on Tightener Sprocket (cut 3, arrow 83).

80. Bolt Stalk Channel Rear, with Clip attached, to Stalk Channel Raising Rod. Clip should point to the rear (cut 3, arrow 84).

81. Place Trip Shield on Lower Deck, passing Shield into Tier so that part of Shield will rest on Lower Tier Sill.

82. Place 4421 Stalk Channel Center Support (Straight Iron with Cotter in) in Hole in Deck Support, according to the height of corn (cut 3, arrow 85).

83. Bolt long Gathering Rod E838 to Outer Conveyor, taking the one inner bolt, that secures Outer Divider Post to Outer Conveyor secured by wood block which is bolted parallel to the inside of Outer Conveyor Upper End, and secure with the other bolt found in Rod (this rod takes the place of the one in cut 3, arrow 86). This rod is flat on one end where bolts attach. Next bolt E837 a long rod with eye turned on one end. Place it on top of Outer Conveyor and secure with bolt and also clip E56 found in Tool Box. You will find holes in top board directly in front of arrow 86, cut 3.

84. Bolt E643C Platform Wing Fender to upper part of Platform with bolt in Fender and E56 Clip found in Tool Box (cut 3, arrow 87). Bolt E763 Lower Shield for Outer Divider Shaft to Lower Sprocket Shield (cut 4, arrow 100).

85. Bolt Stripper Board to top side of Breast Plate (to the top side, not under side). Hook Stripper Board Hook into Knotter Frame Eye and bolt to Stripper Board (cut 3, arrows 88 and 89).

86. Place K83 Third Discharge Arm over end of Knotter Shaft and secure with set screw. Set Arm in line with Discharge Arms (cut 3, arrow 90).

87. Put E351 Discharge Arm Extension in K83. Set in line with Finger Trips and secure with Set Screw in K83 (cut 3, arrow 91).

88. Secure Whip Socket to Stub Pole, third hole from front end.

89. Bolt Twine Can to Stub Pole, fourth hole from front end of pole, with a  $4\frac{1}{4}$  x 5-16 carriage bolt found in Tool Box.

90. Place Seat and Seat Spring outside of Main Drive Wheel. Place Spring in front support when using Bundle Carrier, and in rear support when no Bundle Carrier is used.

91. Bolt in place the two long iron bars, in which are four bolts, using one bolt farthest from the end to connect to Stub Pole. Place one bar each side of Stub Pole.

92. Bolt E698C Bundle Stop to end and on the underside of Stalk Channel (cut 3, arrow 92).

93. Bolt E576C Drive Wheel Fender to Back Rail (cut 3, arrow 93).



94. For long pole, bolt pole in the two iron bars with the two remaining bolts.
95. Pass the remaining bolt through Tilting Lever Connection.
96. Hook Pole Brace in Eye on E649C and bolt the other end to pole with two bolts.
97. Bolt E735 with Equalizer K612 to Pole directly back of Pole Brace.
98. Attach K617 and K616 to right side of Pole or next to Corn Row, the two holes in Equalizer at the right side. Put long end of K613 up through Pole from the left side, placing long hook on K613 up through eye in K615 and secure both with K638 washer and cotter. Put long hook on K616 through outer eye in K615.
99. Place Doubletrees on long bent end of K616 and place K617 on top. Secure with cotter.
100. Place the notched side of E776 Evener Extension over short bend in K613. Next, place the duplicate of E776 on K613, the reverse of the other, or upside down. Then place K615 over the top of the two and secure with cotter. Place K614 long iron with eye and long hook into the other end of Equalizer. Put the short hook into eye on K614 and between the two straps E776 and the Singletree. Then pin short hook and straps E776 and Singletree and secure with cotter.
101. Bolt Twine Tension to Twine Can Cover.
102. Bolt E794 Tier Bevel Gear Shield to Bolt on Breast Plate Pipe and attach to staple on Tier (see cut 3 for Bevel Gear between arrows 84 and 85).

### **Directions for Attaching Bundle Carrier**

1. Place Teeth in Pipe with Sheet Iron attached next to eye bolt in end of Pipe.
2. Place Pipe on Stud of Lower Tier Sill and secure with cotter through eye bolt.
3. Bolt Brace E317 to Pipe on upper end of Tier and bolt the other end to collar on Bundle Carrier Pipe. At the same time connect E318 Bundle Carrier Brace Rear from Main Frame Extension (directly under seat) to Collar on Bundle Carrier Pipe.
4. Bolt Master Wheel Shield E716 to Main Frame Rear and to Brace from Collar to Tier Pipe.
5. Hook E308 Foot Lever Connection Rod on S609 Crank and attach the other end to Foot Lever Trip. Secure with pin and cotter. Rod must be outside of Seat Spring.
6. When Bundle Carrier is used the Seat is placed in socket ahead of Main Axle. When Carrier is removed the Seat occupies the rear socket.

### **To Place Knotter in Low Adjustment**

1. Remove Third Discharge Arm. Loosen set screw on Scroll Cam and remove Scroll from Shaft. Take two bolts out of Breast Plate and Breast Plate Pipe. Remove Tier Frame and Breast Plate. Loosen Set Screw on Knotter Cam and also remove same. Caution: Do not lose the iron key found in the above cam.
2. Remove the three bolts in E363 Tier Frame Extension, also take this off, replacing the three bolts in E363.
3. Reverse set screw in Needle. Remove key and place Needle in low adjustment. See that the hole for set screw in Needle corresponds with countersink in Needle Shaft. Draw up set screw and drive key into Needle. Replace Knotter



Cam, with Discharge Arm on. Be sure to replace key previously removed. Place Cam as far down as it will go and see that hole for set screw in Cam corresponds with hole in Shaft.

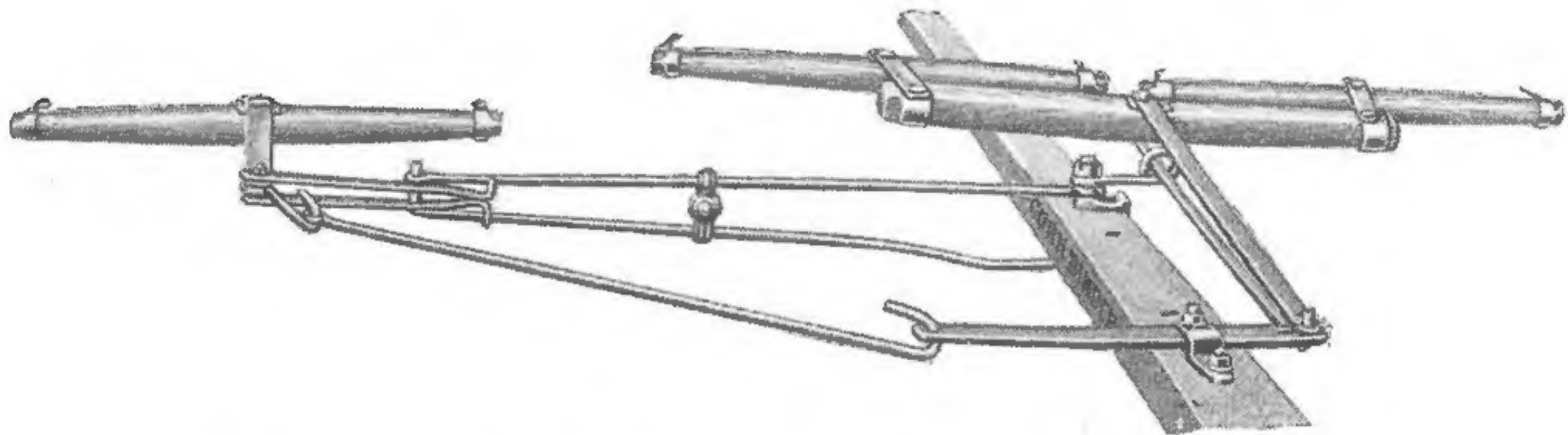
4. Remove bolt in E354 Fork Brace and Breast Bar Pipe and place it in the lower holes in Breast Bar Pipe and the two lower ears on Tier Frame.

5. Replace Knotter Frame and Breast Plate attached next to Knotter Cam and secure with bolts previously removed from Breast Plate and Pipe. Caution: Be sure to see that the flat part on Knotter Pinion is up against Knotter Cam.

6. Replace Scroll Cam with Set screw.

7. For short corn remove upper trip finger.

8. Adjustment will be found on E354 Fork Brace to place the Breast Plate the desired height. When properly set there should be six inches between Deck and swell on under side of Breast Plate. Never use this adjusting bolt under any circumstances only for adjusting this part.



**3-Horse Hitch for Johnston Corn Binder**

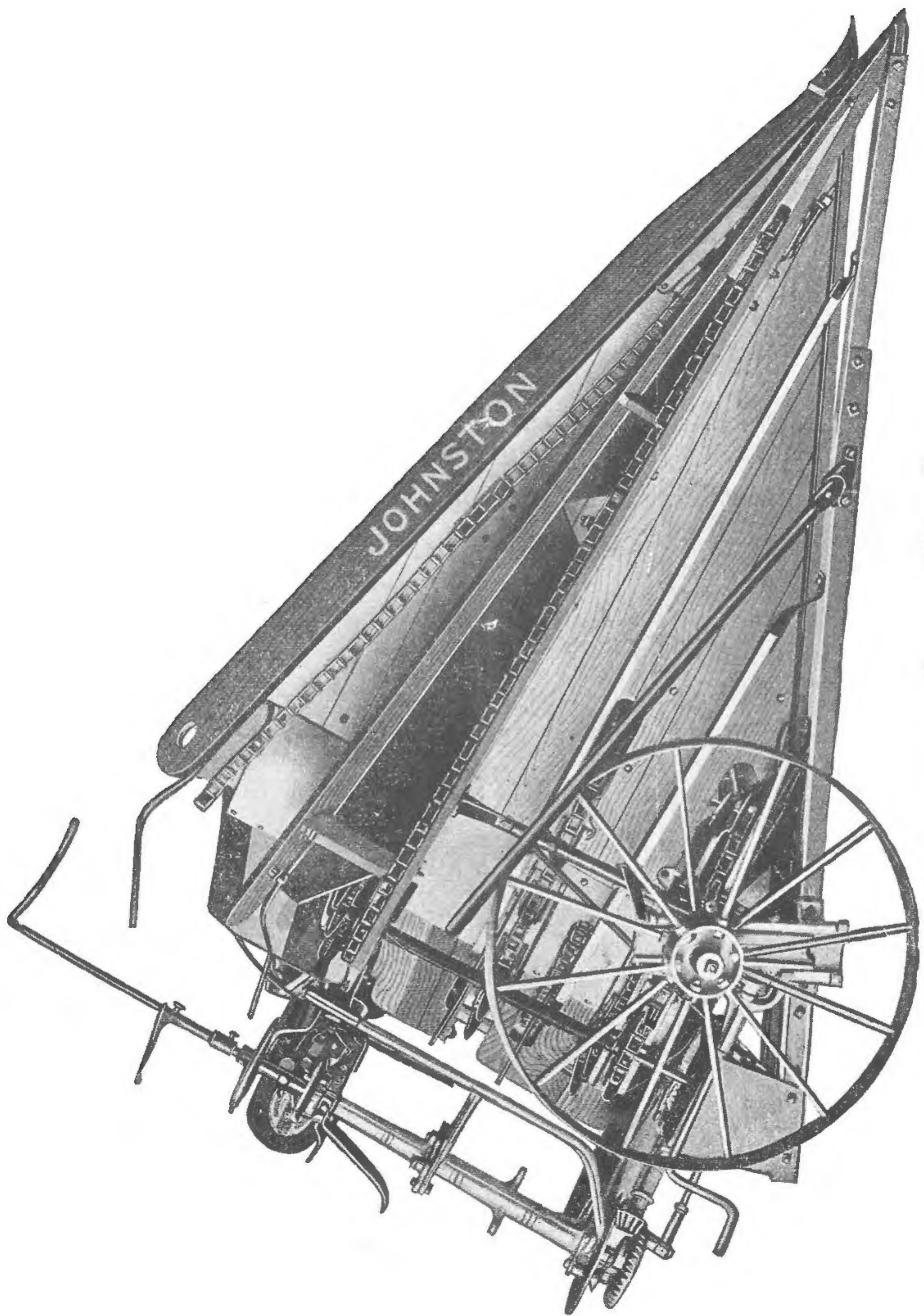


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**Johnstone Corn Binder**